

Amendment and Response

Applicant: Cory Watkins et al.

Serial No.: 10/073,426

Filed: February 11, 2002

Docket No.: 1552 – CA1 (A126.143.101)

Title: CONFOCAL 3D INSPECTION SYSTEM AND PROCESS

REMARKS

This Amendment is responsive to the Office Action mailed June 4, 2003. In that Office Action, the Examiner objected to the specification as reference numeral “124” as stated on page 4 is not shown in the drawings and claims 5 and 12 as containing minor informalities. The Examiner rejected claims 1, 2, 8, 9, 16, and 20 under 35 U.S.C. §102(b) as being anticipated by Corle et al., U.S. Patent No. 5,067,805 (“Corle”). The Examiner rejected claims 3-7, 10-15, and 17-19 under 35 U.S.C. §103(a) as being unpatentable over Corle in view of McCarthy et al., U.S. Patent No. 4,802,748 (“McCarthy”).

With this Response, a proposed drawing correction is submitted, claims 1, 5, 8, 12, and 16 have been amended, and claim 21 added. Claims 1-21 remain pending in the application and are presented for reconsideration and allowance.

Objections to the Specification

In response to the Examiner’s objection to the absence of reference numeral “124” in the Figure, a Replacement Drawing Sheet is submitted that includes the “optical subsystem 124”. Further, the typographical error in claims 5 and 12 identified by the Examiner has been corrected.

35 U.S.C. §§102, 103 Rejections

Each of independent claims 1, 8, and 16 relate to an inspection device for inspecting projections on a substrate such as bumps on microelectronics such as semiconductors. In this regard, each of the independent claims has been amended to recite that the inspection device is adapted to rapidly inspect projections on a substrate. None of the cited references teach or otherwise suggest at least this limitation. In particular, each of Corle and McCarthy describe standalone microscopes used for illuminating and viewing discrete locations on a surface. That is to say, Corle and McCarthy are simply microscopes. They cannot “inspect” projections on a substrate, let alone rapidly inspect such projections as otherwise set forth in the independent claims. As such, it is respectfully submitted that independent claim 1, 8, and 16, as well as claims depending therefrom, are allowable over the cited references.

Amendment and Response

Applicant: Cory Watkins et al.

Serial No.: 10/073,426

Filed: February 11, 2002

Docket No.: 1552 - CA1 (A126.143.101)

Title: CONFOCAL 3D INSPECTION SYSTEM AND PROCESS

Newly presented claim 21 depends from independent claim 16 that, as previously described, is not taught or otherwise suggested by the cited references. Thus, claim 21 is similarly allowable. Further, claim 21 recites that the confocal sensor is characterized by the absence of a Nipkow disk. In contrast, Corle and McCarthy require a Nipkow disk. As such, it is respectfully submitted that newly presented claim 21 recites additionally allowable subject matter.

CONCLUSION

It is believed that all claims are now in a condition for allowance. Notice to that effect is respectfully requested.

Applicants have enclosed a check for fees as set forth under 37 C.F.R. 1.16(b)(c). If additional fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 500471.

The Examiner is invited to contact the Applicants' Representative at the below-listed telephone number if there are any questions regarding this response.

Respectfully submitted,

Cory Watkins et al.,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC

Fifth Street Towers, Suite 2250

100 South Fifth Street

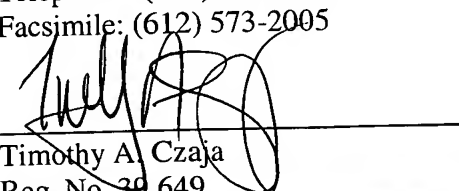
Minneapolis, MN 55402

Telephone: (612) 573-2004

Facsimile: (612) 573-2005

Date: November 4, 2003

TAC:jmc


Timothy A. Czaja

Reg. No. 39,649

CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 4th day of November, 2003.

By 

Name: Timothy A. Czaja